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(54) **SYNTHETIC GENES**

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(57) **ABSTRACT**

The invention provides synthetic nucleic acid sequences encoding proteins of interest that are particularly adapted to express well in plants. The claimed synthetic sequences utilize plant-optimized codons roughly in the same frequency at which they are utilized, on average, in genes naturally occurring in the plant species. The invention further includes synthetic DNA sequence for herbicide tolerance, water and/or heat stress tolerance, healthy oil modifications and for transformation marker genes and selectable marker genes are used. DNA construct and transgenic plants containing the synthetic sequences are taught as are methods and compositions for using the plants in agriculture.

Specification includes a Sequence Listing.